

[*SGML Version See Change Record*]

TECHNICAL MANUAL

INSTALLATION AND OPERATION

MEAT TENDERIZER BERKEL MODEL 705

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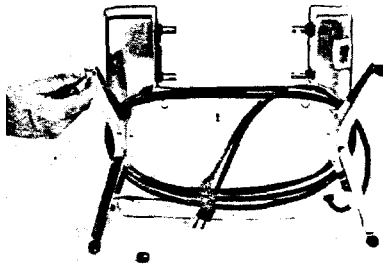
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SECTION
SERVICE MANUAL

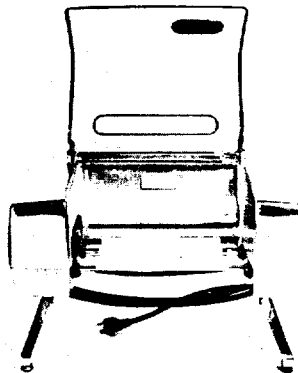
CHAPTER 1

Unpacking and Installation

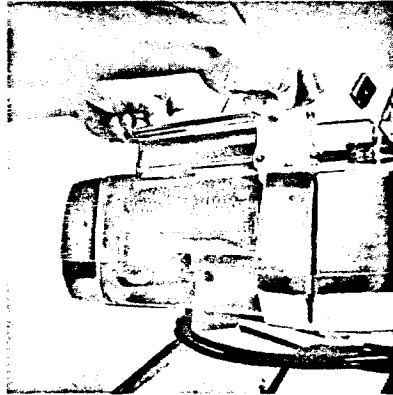
1. Lay tenderizer on it's back onto a thick layer of cloth. Remove the shipping studs from base.
2. While in this position install the 4 studs from the small carton and wrench tighten . Also snap on the 4 rubber feet.



3. Set tenderizer up on legs, remove shipping tape that holds safety neck in place and tip safety neck back.



4. Lift the tenderizer assembly by gripping the knife frame guides in the center, with drive clutches to your left. Lower the tenderizer assembly into the front of the machine until it rests firmly on the 4 support pins. Slide unit to the left, which engages the clutches.



5. Lower the safety neck forward into the operating position.

NOTE

THIS TENDERIZER WILL NOT OPERATE WITHOUT THE SAFETY NECK IN PLACE. NEVER RAISE OR LOWER THE SAFETY NECK WITH THE MACHINE TURNED ON, BOTH FOR PERSONAL PROTECTION AND MACHINE PROTECTION. ALWAYS TURN MACHINE OFF WHEN NOT IN USE. ONLY RUN MACHINE BY USING THE ON-OFF SWITCH - NEVER BY RAISING THE NECK.

6. Uncoil power cord and plug it into the specified electrical receptacle. (Specifications for this machine are found on the plate located on the left hand leg.)
7. Turn OFF-ON rocker switch to ON. If cutting knives do not rotate, turn machine OFF and unplug electrical cord.

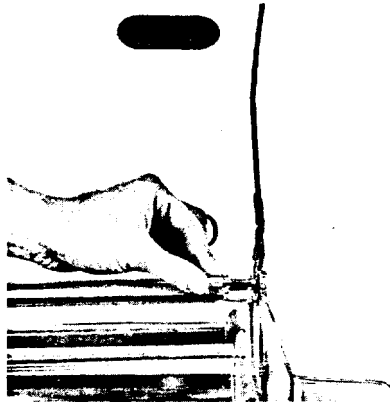
Lack of rotation indicates that the clutches are not engaging. Raise the safety shield and slide the tenderizer assembly to the left. Lower safety shield, plug in electrical cord and turn ON.

The tenderizer is now ready for use.

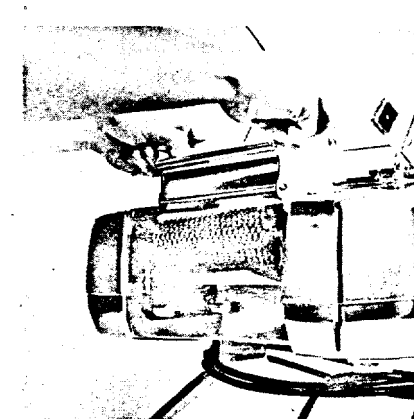


CLEANING AND MAINTENANCE

1. **TURN OFF MACHINE AND UNPLUG ELECTRICAL CORD.**
2. Remove safety cover (9234-0020) by raising and pulling the spring loaded pivot knob to your left. Lift out.



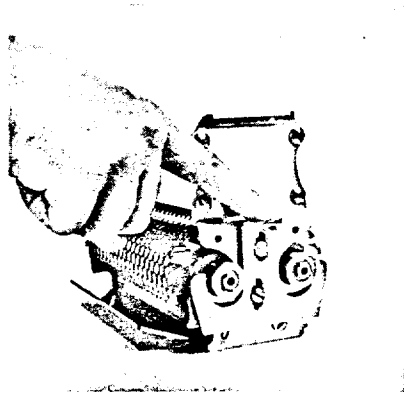
3. Wash and rinse the safety cover and set it aside to air dry. Sanitize with an approved plastics sanitizer before reassembling.
4. Grip the blade frame assembly (4375-0021) at the center of the frame sides. Move to the right and disengage from clutch. Lift out and set it on working surface.



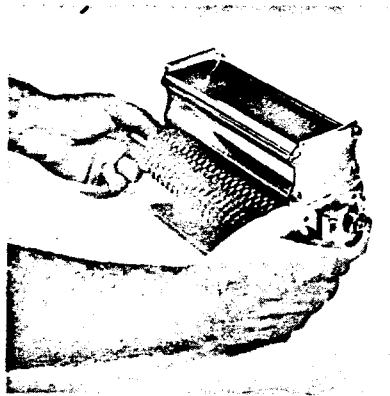
5. Push locking plate on right side of tenderizer unit down.

CAUTION

HANDLE BLADES ONLY BY SHAFT ENDS TO AVOID CUTTING HANDS.



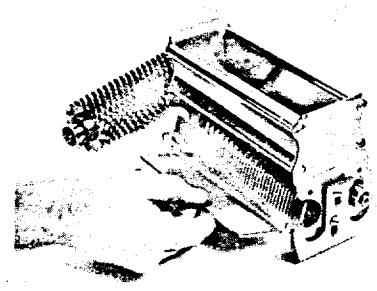
6. Grasp both ends of front blade assembly (4675-0107) and lift out of frame. Set it aside to avoid accidentally cutting yourself during rest of disassembly. Do the same with the rear blade assembly (4675-0105).



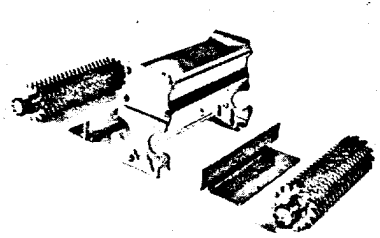
CAUTION

KNIVES ARE SHARP!

7. Lift out front stripper plate. (3475-0105).
8. Remove back stripper plate by rotating up and out.



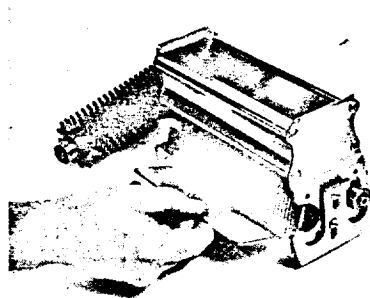
9. All removable parts can be soaked and scrubbed with a bristled brush and a good quality detergent approved for food processing equipment.
10. Rinse thoroughly and set aside to air dry while you are washing the machine case.



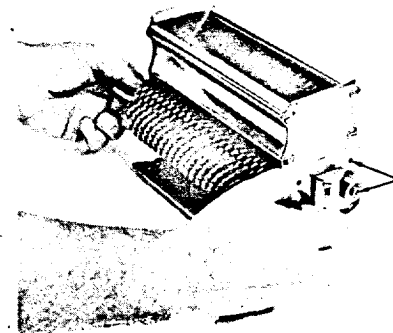
11. Sanitize all tenderizer parts and tenderizer.

REASSEMBLY

1. Replace stripper plates with solid flanges to the outside of the assembly, teeth to the center, and teeth up. (Stripper plates are interchangeable).



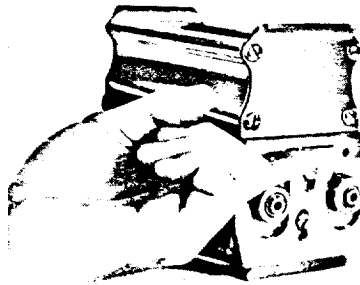
2. Inspect blades (especially if blades have been jammed by bone segments or have been mishandled). If any of the blades in the assembly are bent - replace with a new blade immediately, otherwise you could damage the other blade assembly!
3. With lockplate down, grasp blades by shaft ends and replace. Match color end plugs on blade to matching colored dots on frame. Red for rear blade - Black for front blade.



NOTE

BLADE SHAFTS ARE NOT INTERCHANGEABLE.

4. Raise locking plate up to lock plates in place.
5. Replace tenderizer unit as previously shown and slide to left to engage clutches.



6. Replace safety cover by retracting pivot pin and lowering safety neck into closed position.
7. Plug power cord into wall receptacle.

The tenderizer is now ready for use.

BERKEL MODEL 705 - SPECIFICATIONS

CONSTRUCTION: Corrosion resistant, steel frame, stainless burnadized aluminum housing.

TENDERIZING GROUP: Stainless steel blades nylon spacers, stainless steel strippers.

SAFETY FEATURES: Clear Lexan safety cover, magnetic interlock cuts power when cover is raised, braking system brings rollers to rapid stop, and finger guards under roller blades.

PRODUCT CAPACITY: 1 1/4" x 7 7/8".

DIMENSIONS: Width 16" x Depth 13 2/3" x Height 16".

MOTOR: 1/2h.p., 115 V-60-1, 6.9 amps, thermally protected. Optional motor available, 220 V-50-1.

TRANSMISSION: Direct gear drive, resiliently coupled, enclosed with permanently lubricated gear box.

OUTPUT SPEED: 120 R.P.M.

NET WEIGHT: 60 LBS.

SHIPPING WEIGHT: 72 LBS.

OVERLOADING

The machine may jam from overloading or by a piece of bone accidentally fed into the blades.

If this should happen:

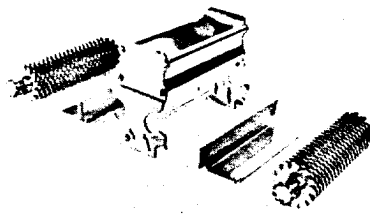
1. Turn off machine immediately so as not to burn out motor or cause damage to gear box.
2. Unplug power cord.
3. Disassemble blades. Inspect for bent blades.
4. Remove obstruction, clean, inspect and reassemble.

TENDERIZER GROUP

The tenderizer group is the Assembly most often in need of your attention.

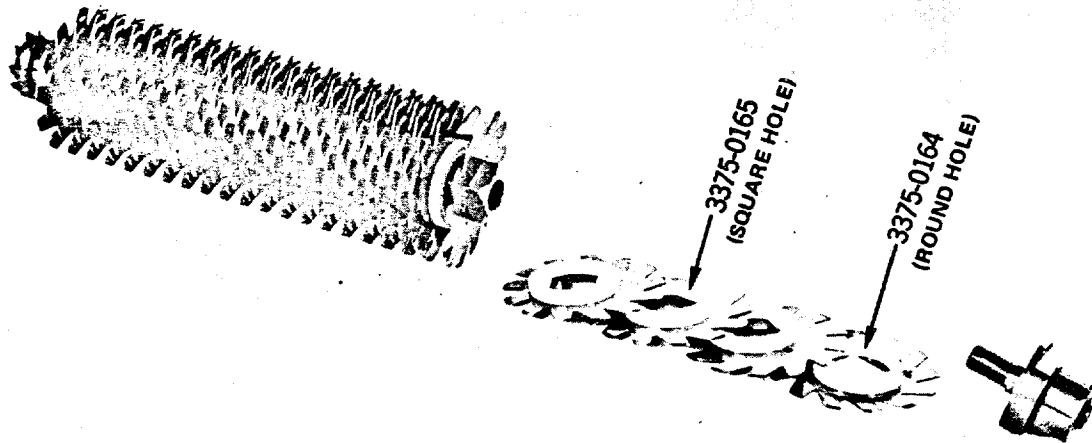
When called upon to repair any part of this group you will want to inspect all members of the group for wear and damage. Repair or replace as indicated by condition.

- A. TENDERIZER BLADE ASSEMBLY REPAIR If the blades are bent, or the teeth are broken, the Assem-



bly must be disassembled and repaired.

BLADES ARE SHARP! USE CAUTION IN HANDLING TENDERIZER BLADE ASSEMBLY



1. Disassembling Tenderizer Blade Assembly

- Mount shaft upright in bench vice at the clutch end.
- Remove complete screw assembly bearing.
- Remove blades (3275-0014) and round hole spacer (3375-0164 (1)) and square hole spacers (3375-0165 (41)) down through blade(s) to be replaced. Note direction of the notch of the last blade removed.

2. Reassembling Tenderizer Blade Assembly

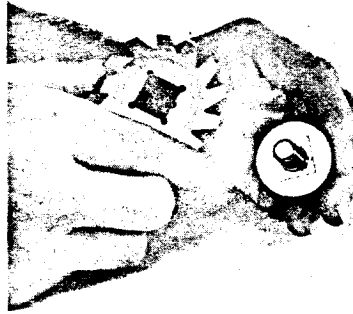
Blades are placed on shaft staggered at 180 degrees. They are notched for easy identification and replacement. Front blades are mounted with blade incline forward and rear blades are mounted with blade incline facing the rear. Incline of blade always matches incline of gear teeth.

NOTE

If not mounted in 180 degree rotation and in proper direction, the blades will hang up rather than mesh and damage either the blades or the entire assembly.

- Reassemble blades and spacers installing blade first, then spacers alternately. (See pictures on pages 7 and 9, drawing, page 26.
- The last blade on the Assembly does NOT FIT on the shaft, but is located on the shoulder of the screw. The last blade MUST be located on this shoulder.

The solid spacer (3375-0164), the only one with a round hole, must be centered as the screw assembly on either front or rear shaft is replaced so that it is aligned with the rest of the spacers.



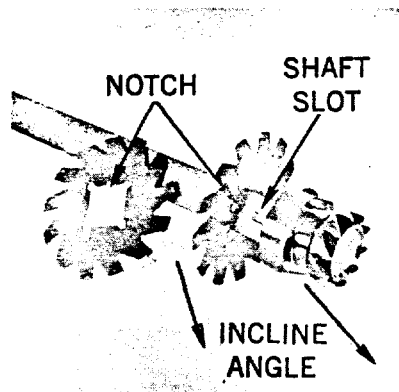
SERVICE NOTE: On some Assemblies you may find a thin metal shim washer. If new spacers are used, you will probably NOT have to use this shim washer.

B. BLADE SHAFT ASSEMBLY REPLACEMENT (4575-0059 front, 4575-0061 rear) The blade shaft assembly should only have to be replaced if the gear teeth or shaft have been damaged.

1. Disassemble blades and spacers as described in previous section.
2. Replace a new shaft (front or rear).

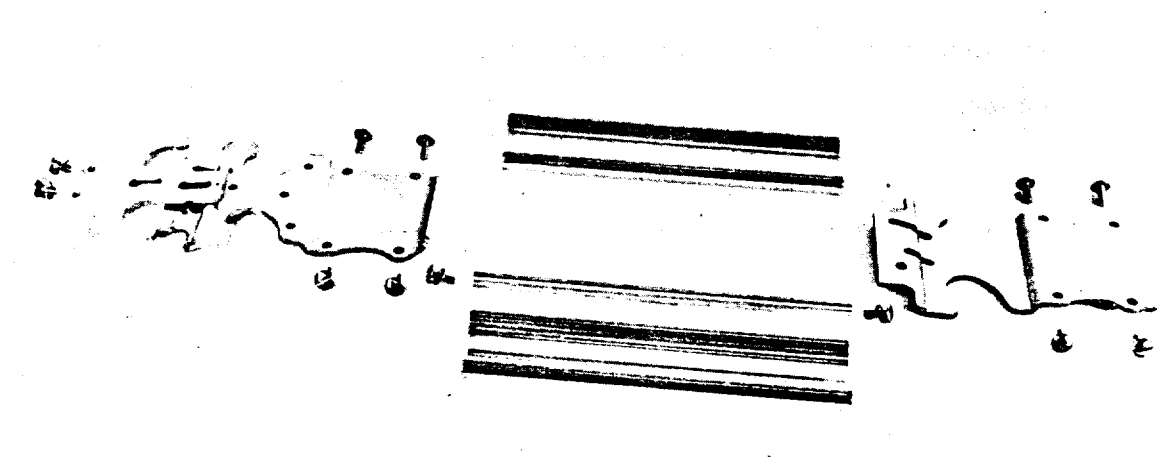
NOTE

- a. **Notch on first blade placed must match slot in shaft, and;**
- b. **Blade incline must be the same direction as the incline of the gear teeth.**



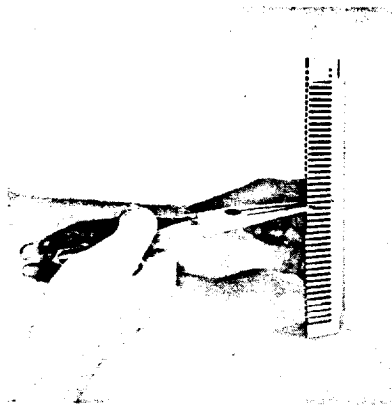
3. Reassemble blades and spacers as described in previous section.

C. BLADE FRAME ASSEMBLY Any part of the Blade Frame Assembly can be replaced if damaged or broken. (Consult accompanying picture and line drawing on page 26.



D. STRIPPER PLATE On occasion you will find that the Stripper Plate has been damaged. If badly bent or if teeth are missing replace.

If teeth are bent out of line they can usually be straightened by hand or with pliers.



CAUTION

Make sure that spacing between teeth is accurate so there is no interference with the cutting blades. If problem continues replace with a new stripper plate.

SAFETY COVER (9234-0020)

If the cover is broken, replace as entire unit.

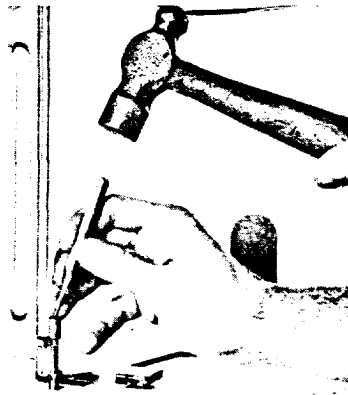
A. MAGNET If the magnet is replaced, position it so that the red dot is at the top. Fix in place with No. 1875-0035 sealant.

NOTE

In some assemblies there are spacers behind the magnet. The magnet should rise slightly above the surface of the magnet well of the cover.

B. PIN ASSEMBLY The Pin Assembly knob on the 705 is staked onto the pin and ordinarily should not need replacement. If replacement ever is needed, the knob should be screwed down even with the head of the cover pivot pin (3375-0156) and then staked in place to avoid the possibility of the knob working free and failing into the cutting blades.

The entire assembly - Cover Pivot Pin (3375-0156), the Spring (3275-0012) and the Pivot Pin Knob (3375-0157) - should be replaced at one time.

**ELECTRICAL COMPONENTS**

The wiring diagram for both the motors used in the 705 Tenderizer is the same. The only difference in the systems is that domestic models will use 115v - 60HZ-1 motors and the export models will use 220v - 50HZ-1 motors.

The motor in this tenderizer is equipped with an automatic thermal protector. If the motor shuts off during operation, allow sufficient time to elapse for cooling, at which point the thermal device will reset.

A. TROUBLE SHOOTING Before assuming that the motor is faulty, trouble shoot the electrical system. In trouble shooting, you will want to:

1. Check current available from wall socket.

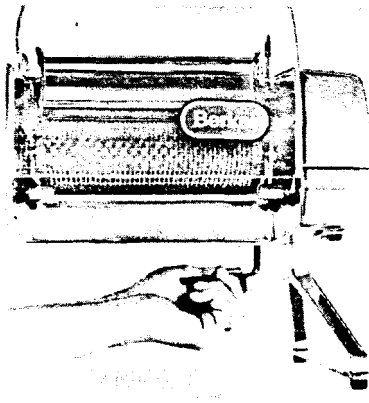
To check internal electrical components, remove neck and blade assembly. Remove upper housing by removing two socket screws located in the lower housing just to the rear of the tenderizer well. Tap upper housing with heel of hand to loosen the adhesive seal. Lift off.

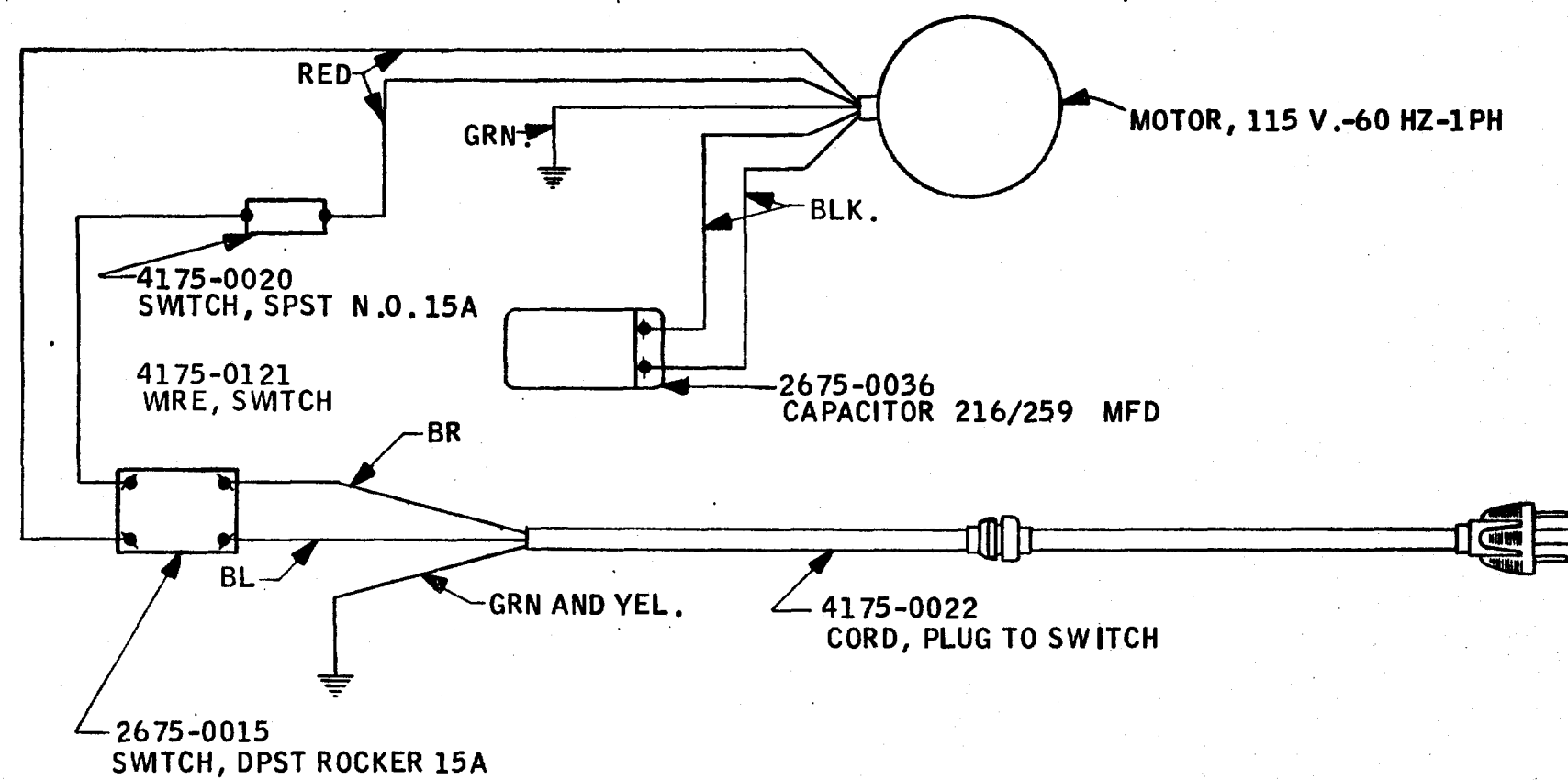
2. Check proper grounding at inlet power cord and motor ground.
3. Check if plug to switch cord is delivering power to double-throw switch.
4. Check if double-throw switch is operating properly. If not - replace.
5. Check electricity from double-throw switch to micro-switch and motor. Check magnet switch and arm to see if it is activating micro-switch properly. If micro-switch is not operating - replace. (Also, see "D", this section, on micro-switch adjustment).

6. Check electrical supply to and from capacitor. If capacitor is not operating - replace.

CAUTION

WHEN REPLACING ELECTRICAL COMPONENTS, UNPLUG THE POWER CORD!

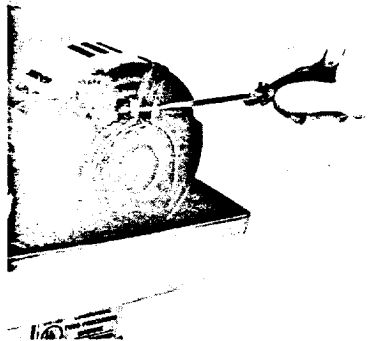




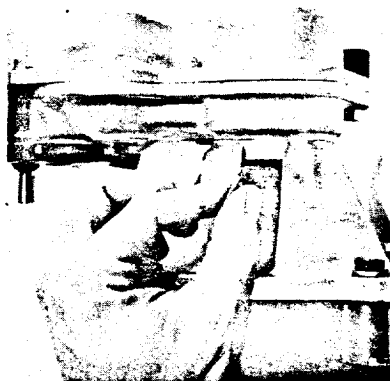
B. MOTOR REPLACEMENT If rest of electrical system is working but motor does not operate, DISCONNECT POWER SUPPLY AND REPLACE MOTOR:

1. Disassembly:

- a. Remove bolt that holds motor support brackets in place and remove brackets.



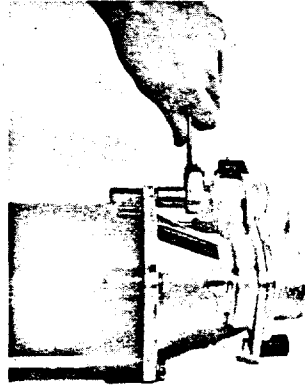
- b. Lift entire motor, adaptor assembly and gear box from lower housing as one unit and set on bench.
c. Unscrew set screw from gear box end of flexible coupling.



- d. Remove four (4) screws from motor adaptor assembly and slip motor and coupling out of motor adaptor assembly.
e. Unscrew set screw from flexible coupling on motor shaft.

NOTE

If coupling is worn - replace.

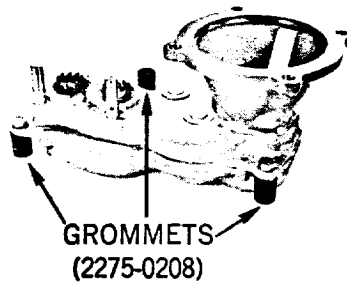


2. Re-assembly

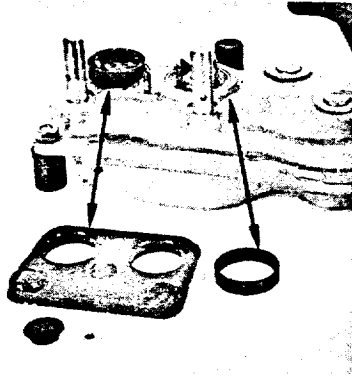
- a. Replace coupling and set screw on new motor shaft, mount motor on the adaptor assembly and replace set screw on gear box shaft.
- b. Re-install complete unit, reconnect electrical leads to micro-switch and capacitor. Reconnect ground wire.
- c. Plug unit into wall outlet and test by manually pressing magnet switch.

NOTE

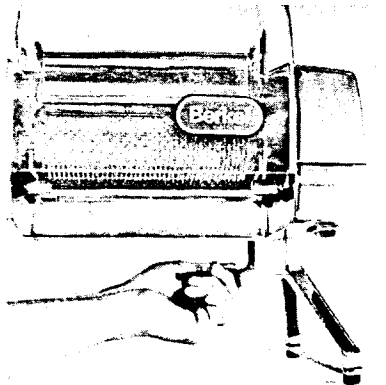
Always check the gear box grommets (2275-0208) whenever you have the upper housing off. If they are worn or damaged, remove the old grommet and slip on a new one.



- d. Use sealant (Loctite No. 290) around black nylon bezels to insure that housings are sealed. Wipe off surplus sealant.

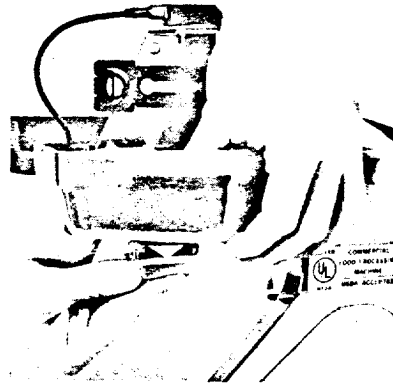


- e. Apply gasket sealant (Loctite No. 510) to edge of lower housing, place upper housing in place and re-install socket screws and caps in lower housing.



C. ON-OFF POWER SWITCH (2675-0015) To replace the ON-OFF power switch:

- Remove the upper housing assembly.
- Remove wiring from switch.
- Remove 4 bolts that hold switch to lower housing.
- Drop switch down through opening and remove the switch boot (3675-0050).

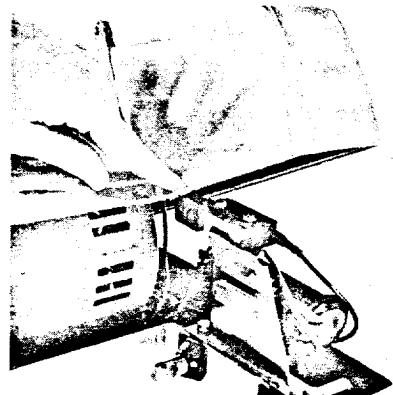


- Install new switch. Make sure that OFF position is toward the front.
- Re-install the switch boot and position switch up through lower housing.
- Re-install 4 bolts and wiring.

D. MICRO-SWITCH ADJUSTMENT (4175-0020) The plastic tenderizer neck is fitted with a magnet that interlocks with the magnet on the micro-switch located inside the right side of the machine case.

The micro-switch is mounted in slotted holes for adjustment. If the magnet has been removed, re-install the magnet with the RED dot facing the RED dot on the neck magnet.

With the neck raised, the micro-switch magnet should rest against the inside wall of the lower housing. When the neck is lowered into operating position, the inner magnet should be repelled and activate the microswitch.



Adjust the micro-switch by loosening the nuts on the mounting bolts and position the magnet exactly opposite the magnet on the neck.

When you tighten the nuts after adjusting, seal them with a drop of silicone sealer.



FLEXIBLE COUPLING REPLACEMENT (2375-0095)

This flexible coupling is designed to break if extreme torque is encountered by the cutting blades jamming. If it breaks, you will have the motor running freely and either no power delivered to the gear box, or there will be erratic and jerky action of the cutting blades.

- Remove upper housing and visually inspect.
- Replace as previously described.

GEAR BOX REPAIR

READ THESE DIRECTIONS FULLY BEFORE MAKING A DECISION TO REPAIR

The gear box is repairable if reasonable caution is exercised in dismantling and reassembly.

TOOLS & MATERIALS Other than the normal service tools and supplies, you will need the following to repair the 705 Gear Box:

- Gear Box Assembly Fixture (4675-0426-F-2).

NOTE

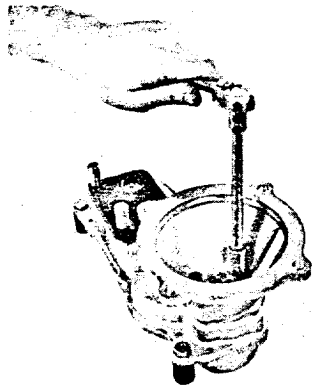
The above can be ordered through the Berkel Service Center, LaPorte, Indiana.

- Loctite 290, Self Wicking Adhesive. (Loctite Corporation, Newington, Conn. 06111).
- Loctite 510, Gasket Sealant. (Loctite Corporation, Newington, Conn. 06111).
- Gear Oil - E.P. - Hi V.I. (Type, Arco-Penet E.P.S. 7000).
- Arbor Press with variable opening fixture.
- Cotton Applicators.

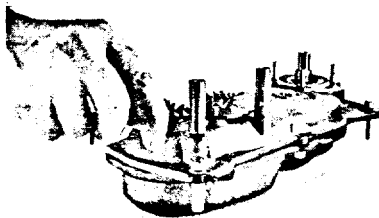
The gear box housings are fitted at the factory using Loctite No. 510 Gasket Sealant (1875-0035) to form the gasket. Under the normal process of taking out the two dowel pins (2275-4221), step No. 6, the two halves will loosen. Loctite No. 510 is used only on the housing halves. Loctite No. 290 is used on all other parts per directions that follow.

A. Gear Box Disassembly

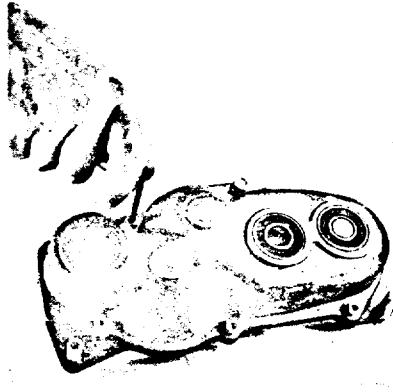
1. After detaching the motor and flexible coupling, remove the motor adaptor assembly by unscrewing the 4 bolts that attach it to the gear box.



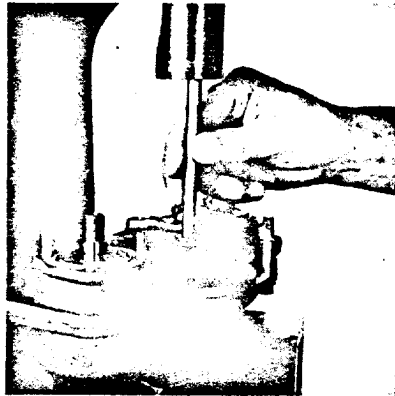
2. Remove 2 support pins (3375-0697) and drain the oil (Gear E.P. - Hi V.I.). There are 1% oz. of this lubricant (1875-0004) in the gear box but it is very thick, so will drain very slowly.



3. Remove 5 socket screws 1/4 x 1/2 (2175-1751).



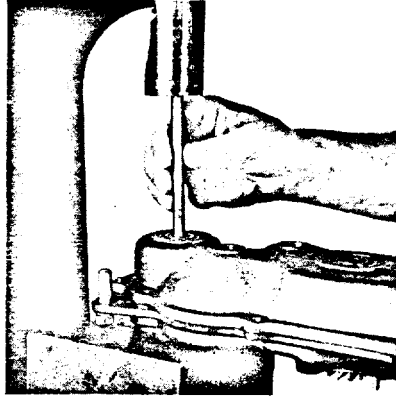
4. Press out 2 idler shafts (3375-0669) using a 1/2" arbor press. Exert steady, firm pressure until the shafts drop through. Catch the shafts with your hand so they will not be damaged by dropping on a hard surface.



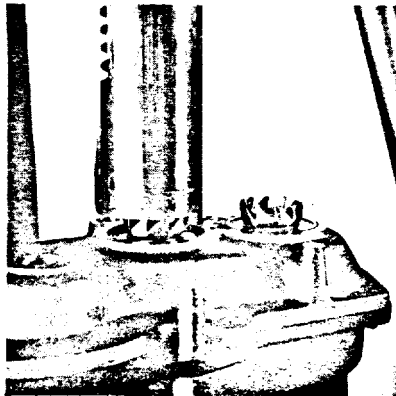
5. Press out the drive-gear assembly shaft (4375-0132) from the back side of the gear box (the side opposite the housing), complete with gears, using a 5/8" diameter arbor press.

NOTE

On occasion the back bearing will break loose and drop with the assembly into the housing. In that case you will have to wait until the housing halves are separated before the bearing is removed from the shaft.



6. Press 2 clutch assemblies about .06" using the arbor press and a pin of large enough diameter to completely cover gear teeth. This will break them loose from the outer bearings that are sealed with Loctite No. 290.



7. Break loose the 2 dowel pins (2275-4221), using a punch slightly smaller than the diameter of the pins.

CAUTION

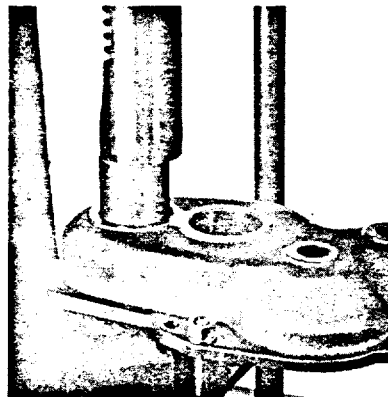
If you use a punch considerably smaller than the correct diameter, you will distort the pins and they cannot be reused.



8. Once the pins are driven out, the two halves of the gear box housing can be separated. Lay the gear box on its back and lift off the front housing and lift out the fiber gear assembly cluster (4575-0285) and the metal gear assembly cluster (4575-0286) next to it.



9. Now press alternately one clutch assembly and then the other from the rear, using a punch that completely covers the outer race of the bearing, (parts 4375-0134 and 4375-0135) until they are freed and fall out.

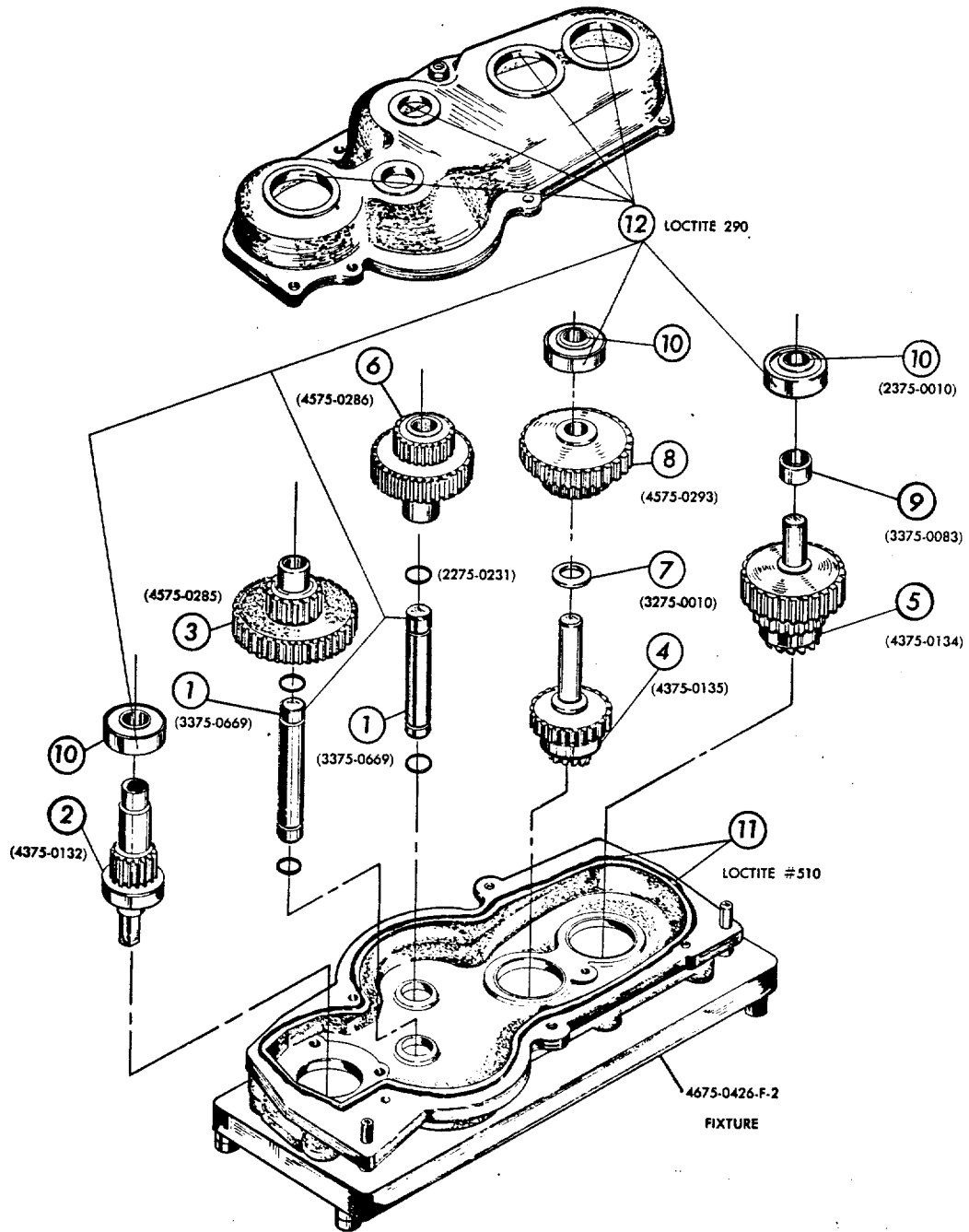


10. Examine the gears visually to see if they are damaged.

Rotate the bearings with your fingers. If there is an irregular rotation, if they are tight and binding or if they have a granular feel, as if there is sand in the bearings - it probably indicates that the bearings have been damaged in removal and must be replaced.

B. GEAR REPLACEMENT

- If either of the gear cluster assemblies (4575-0285 or 4575-0286) are to be replaced, you would order the respective assembly.
- If gear drive assembly (4375-0132) must be replaced, the assembly will be shipped complete except for the rear bearing. The rear bearing can be pressed off the assembly and reused if not damaged.
- If a gear in the clutch assembly - front - (4375-0134) must be replaced, it will be shipped as a complete assembly except for the rear bearing which is re-useable.
- If a gear in the rear clutch assembly (4375-0135) must be replaced:
 - a. Press off gear cluster (4575-0293) and rear bearing at the same time. The gear cluster (4575-0293) can be ordered as a separate part.
 - b. Be sure to keep washer (3275-0010) for use in reassembly.
 - c. The rest of the assembly (4375-0135) will come already assembled.



C. Gear Box Reassembly

- Remove all rear bearings and set aside for cleaning. Clean all gears and the housings with a cleaning solvent. (No. 111 Tri-chloroethylene)

NOTE

IT IS ESPECIALLY IMPORTANT THAT THE MATING SURFACES OF THE HOUSINGS AND THE BEARING RACES BE PERFECTLY CLEAN, OTHERWISE THE LOCTITE SEALANTS WILL NOT FORM AN EFFECTIVE GASKET.

CAUTION

WITH THE CLUTCH ASSEMBLIES AND DRIVE GEAR ASSEMBLY, WHERE THE FRONT BEARINGS REMAIN ATTACHED, IT IS IMPORTANT THAT THE BEARINGS NOT BE IMMERSSED IN THE SOLVENT. THE SOLVENT COULD PENETRATE AROUND THE PLASTIC SEAL AND DILUTE THE BEARING LUBRICANT.

- Using fixture No. 4675-0426-F-1, set front housing (the shallow housing) in place with the four small screw holes to your left. Circled numbers in the drawing correspond to the 12 steps in reassembly.

NOTE

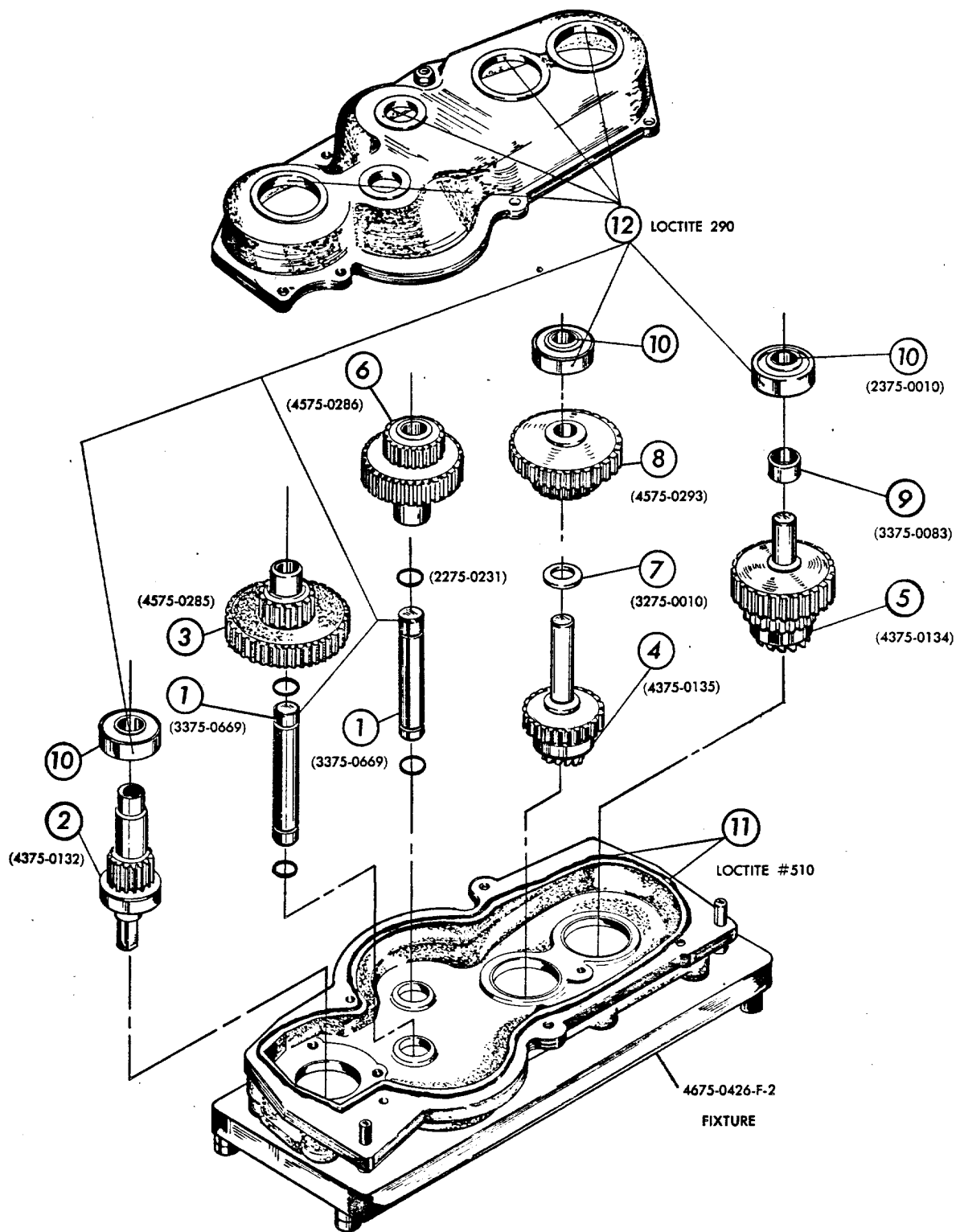
Once you have begun the reassembly do not leave it. Complete the reassembly totally, otherwise the Loctite curing period may be thrown off.

1. Put new "O" rings (2275-0231) on idler shafts. Put a film of Loctite No. 290 on the mating surface of the idler shafts and the facing of the holes where they fit, using a "Q-tip" type swab. Set 2 idler shafts (3375-0669) in place and press down until "O" rings snap into place.
2. Put a film of Loctite No. 290 on the outer race of front drive shaft bearing and housing opening and set drive assembly (4375-0132) into place.

CAUTION

Do not get Loctite No. 290 on inner surface of bearing races or it will freeze up the races and prevent the bearings from turning properly.

3. Set fiber gear cluster assembly (4575-0285) in place over left hand idler shaft.
4. Put film of Loctite No. 290 on outer race of rear clutch assembly bearing and housing opening and set rear clutch assembly (4375-0135) in place - minus cluster.
5. Put film of Loctite No. 290 on outer race of bearing on front clutch assembly and housing opening and set front clutch assembly (4375-0134) in place.



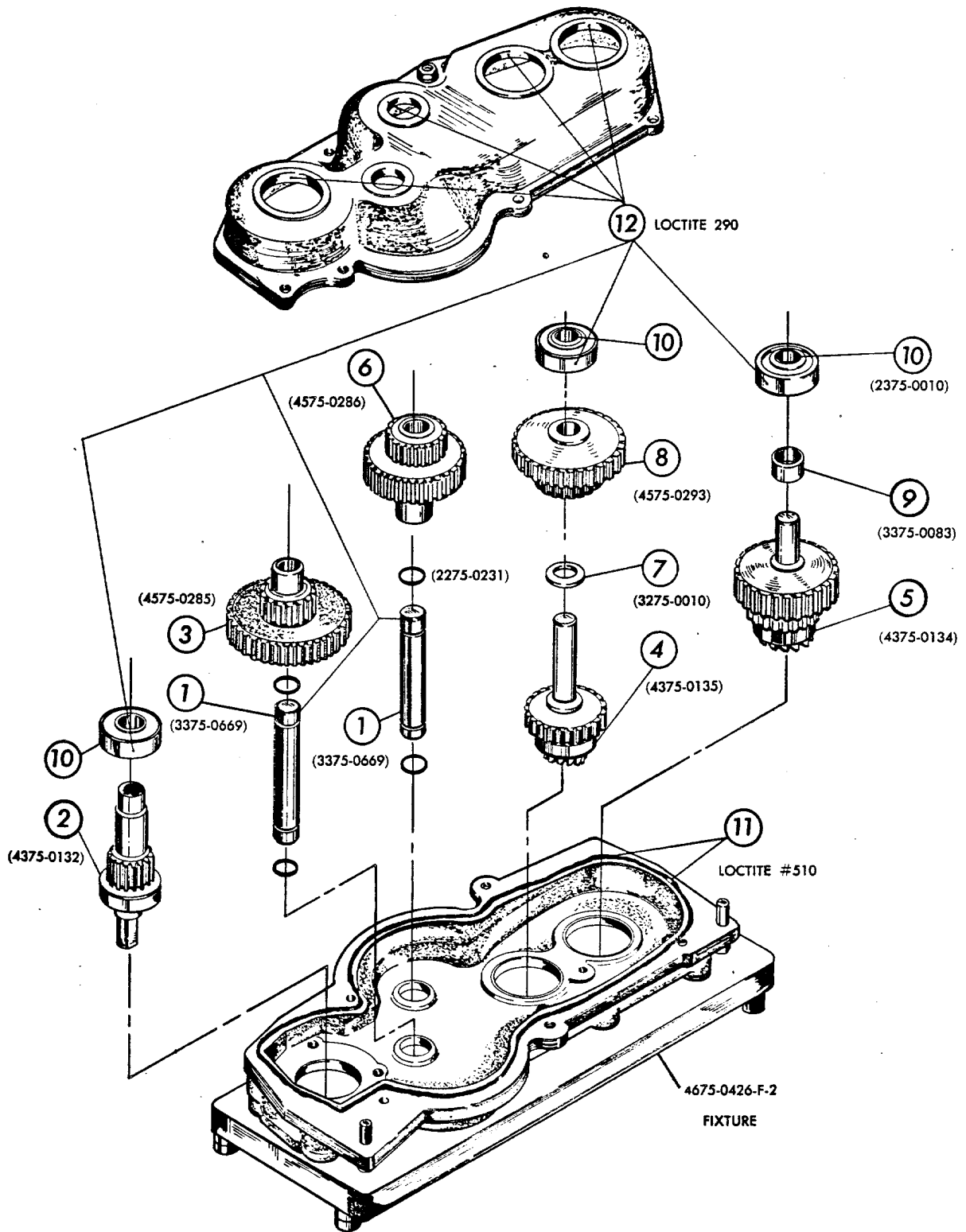
Gear Box

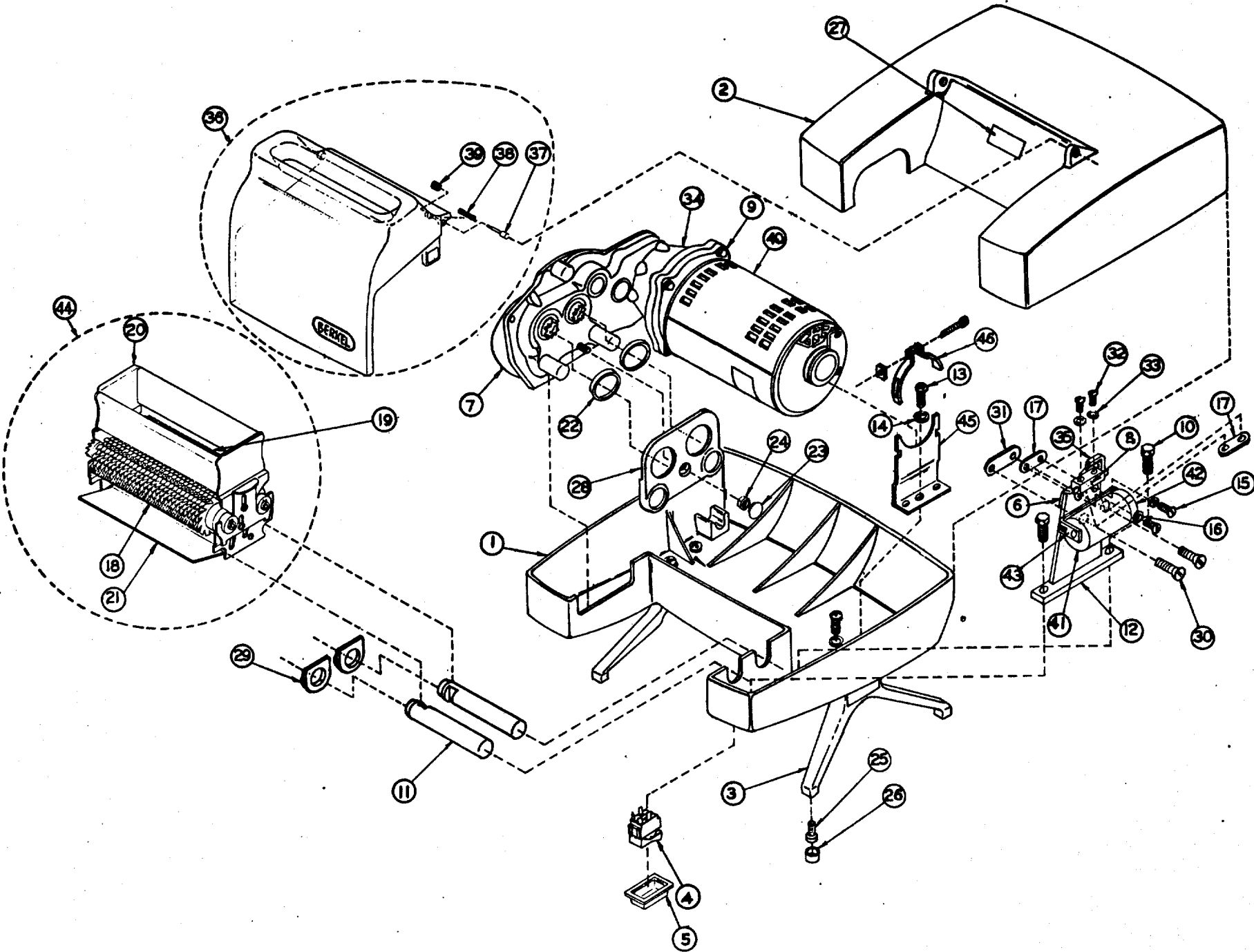
6. Set in metal idler assembly (4575-0286) on right hand idler shaft.
 7. Set flat washer (3275-0010) on rear clutch assembly shaft.
 8. Set cluster assembly (4575-0293) on rear clutch assembly.
 9. Slip front shaft spacer (3375-0083) on front clutch assembly.
 10. Put film of Loctite No. 290 on inner race of remaining 3 bearings (2375-0010) and on shaft mating surfaces. Set bearings on drive shaft and 2 clutch assemblies.
 11. Lay a 1/32 bead of Loctite No. 510 (not No. 290) gasket sealant completely around the front housing assembly within the bolt holes. Smooth the Loctite No. 510 out to a light film using a piece of stiff, but pliable plastic. Wipe off any excess Loctite from inside and outside of housing.
 12. With a swab, put a film of Loctite No. 290 on the outer races of the rear bearings and the rear housing openings into which they fit. Also, coat the idler shaft mating surfaces and idler rear housing openings with Loctite No. 290.
- Set rear housing over assembled parts and reset dowel pins (2275-4221).
 - Replace and tighten 5 screws (2175-1751).
 - Wipe off any Loctite that remains on outside seam of housings. If there is any residue on the outside after the curing period it will be damp. This is not a cause for concern because the Loctite between flanges will have formed a firm gasket.

Let assembly set a minimum of 6 hours so Loctite will age properly to form gasket and seals.

- a. After curing, test free movement of gears by turning drive shaft 20 complete revolutions.
- b. Put 1 1/2 ounces of gear oil (1875-0004) into rear support mounting hole of gear box.
- c. Replace 2 support pins (3375-0697).

Gear box is now ready for reassembly in tenderizer per previous instructions.

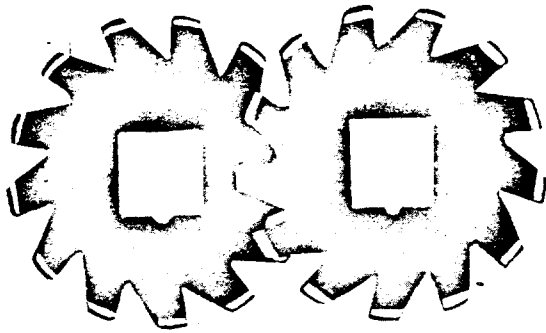




Frame, Motor, and Gearbox

NOTE

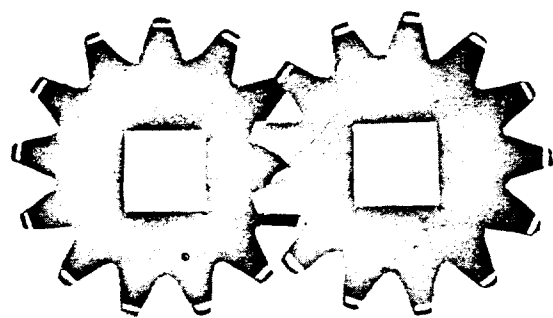
PARTS ON THIS PAGE ARE INTERCHANGEABLE WITH MODEL 703
AND 704 PARTS



**4675-0107
(Front)**

**4675-0105
(Rear)**

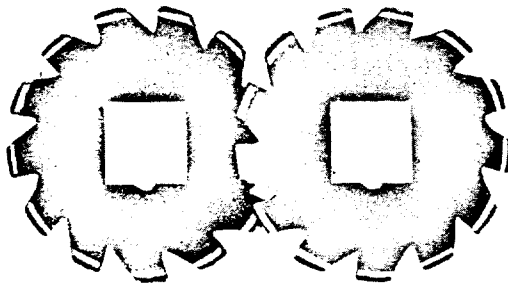
STANDARD TENDERIZING ASSEMBLY



**4675-0117
(Front)**

**4675-0118
(Rear)**

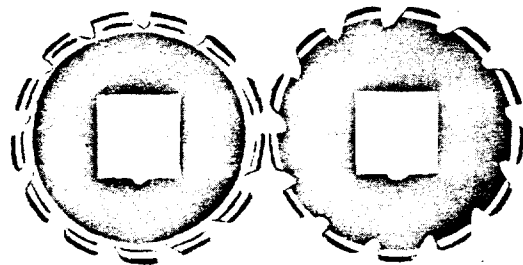
KNITTING ASSEMBLY



**4675-0217
(Front)**

**4675-0216
(Rear)**

SCORING ASSEMBLY

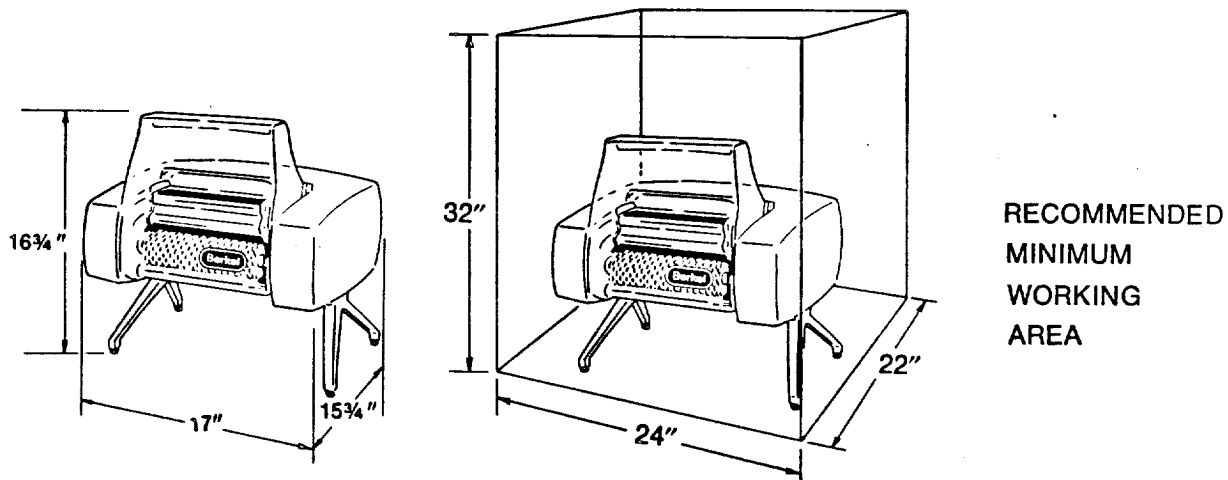


**4675-0295
(Front)**

**4675-0294
(Rear)**

SCORING FROZEN MEAT ASSEMBLY

Model 705 Tenderizer Blade Assembly Options



Specifications

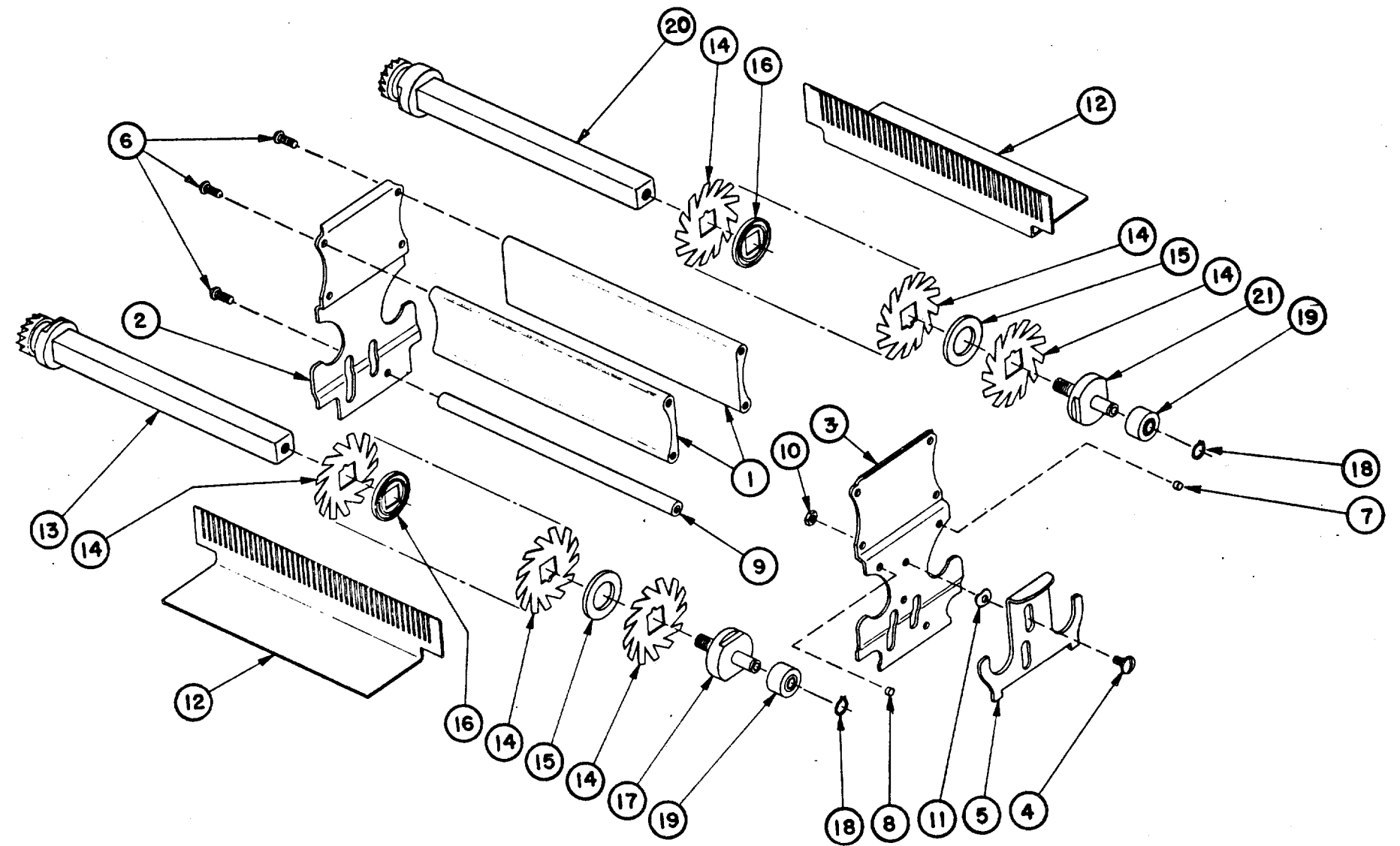
PARTS LIST FOR FRAME, MOTOR AND GEAR BOX

| REF.NO. | PART NO. | DESCRIPTION | QTY |
|---------|-----------|----------------------------------|-----|
| 1 | 3375-0274 | HOUSING, LOWER | 1 |
| 2 | 4575-0275 | HOUSING, UPPER | 1 |
| 3 | 3775-0279 | LEG, TENDERIZER | 2 |
| 4 | 2675-0015 | SWITCH, DPST ROCKER 15A | 1 |
| 5 | 3675-0050 | BOOT, SWITCH | 1 |
| 6 | 2475-0385 | MOUNT, MICRO-SWITCH | 1 |
| 7 | 4675-0462 | GEAR BOX ASSY, COMP | 1 |
| 8 | 4175-0020 | SWITCH, SPST N.O.15A | 1 |
| 9 | 2175-1073 | SCR, CAP HX 3/8 x 1 | 4 |
| 10 | 2175-0237 | SCR, TR - SF/TT HX W 1/4 x 1 1/4 | 2 |
| 11 | 3375-0664 | PIN, SUPPORT | 2 |
| 12 | 4575-0291 | SUPPORT ASSY, CAPACITOR | 1 |
| 13 | 2175-1864 | SCR, SOC B 5/16 x 1 | 4 |
| 14 | 2275-1065 | WASH, LK REG 5/16 | 4 |
| 15 | 2175-1321 | SCR, PAN 6 x 3/8 | 2 |
| 16 | 2275-1021 | WASH, PL BR NO. 6 | 2 |
| 17 | 2175-0073 | NUT, TWIN NO. 6 x 1 | 1 |
| 18* | 4675-0107 | SHAFT ASSY, BLADE COMPL F | 1 |
| 19* | 4675-0105 | SHAFT ASSY, BLADE COMPL R | 1 |
| 20 | 4375-0021 | FRAME ASSY, BLADE | 1 |
| 21 | 3475-0105 | PLATE, STRIPPER | 2 |
| 22 | 3875-0054 | SEAL, CLUTCH | 2 |
| 23 | 3875-0055 | PLUG, FLUSH BUTTON | 1 |
| 24 | 2175-5040 | NUT, HEX NO. 10 | 1 |
| 25 | 3375-0191 | FOOT, SUPPORT | 4 |
| 26 | 3675-0051 | SHOE, RUBBER | 4 |
| 27 | 3175-0054 | PLATE, CAUTION | 1 |
| 28 | 3875-0051 | BEZEL, CLUTCH | 1 |

PARTS LIST FOR FRAME, MOTOR AND GEAR BOX - Continued

| REF.NO. | PART NO. | DESCRIPTION | QTY |
|---------|-----------|---------------------------------------|-----|
| 29 | 3875-0053 | BEZEL, PIN | 2 |
| 30 | 2175-1642 | SCR, FLAT NO. 10 x 1/2 | 2 |
| 31 | 2175-0072 | NUT, TWIN NO. 10 x 1-1/2 | 1 |
| 32 | 2175-1326 | SCR, PAN NO. 6 x 1" | 2 |
| 33 | 2275-1027 | WASH, LK INT NO. 6 | 2 |
| 34 | 4575-0276 | ADAPTER ASSY. MOTOR | 1 |
| 35 | 4375-0026 | MAGNET ASSY. SWITCH | 1 |
| 36 | 9234-0020 | SAFETY COVER, COMPLETE | 1 |
| 37 | 3375-0156 | PIN, COVER | 1 |
| 38 | 3275-0012 | SPRING | 1 |
| 39 | 3375-0157 | KNOB, PIVOT | 1 |
| 40 | 4975-0110 | MOTOR, 115, 60-1-1/2 (Domestic) | 1 |
| | 4975-0112 | MOTOR, 220, 50-1-1/2 (Export) | 1 |
| 41 | 2675-0036 | CAPACITOR, 216/259 MFD | 1 |
| 42 | 2675-0002 | CAP CAPACITOR | 1 |
| 43 | 3275-0011 | BRACKET, CAPACITOR | 1 |
| 44 | 4675-0103 | COMPLETE FRAME & BLADE ASSEMBLY (STD) | 1 |
| 45 | 3475-0392 | MOTOR MOUNT, FRANKLIN | 1 |
| | 3475-0407 | MOTOR MOUNT, G.E. & EMERSON | 1 |
| 46 | 2275-0087 | MOTOR CLAMP | 1 |

*For blade options see pg. 28



PARTS LIST FOR BLADE AND BLADE FRAME

| Ref. No. | STANDARD Part No. | Description | Qty. |
|----------|-------------------|--|------|
| * | 4375-0021 | FRAME ASSEMBLY, BLADE | 1 |
| 1 | 3675-0054 | SIDE, BLADE FRAME | 2 |
| 2 | 3475-0101 | PLATE, END L.H. | 1 |
| 3 | 3475-0102 | PLATE, END R.H. | 1 |
| 4 | 3375-0170 | SCREW, FILL. #10 X 9/32 | 2 |
| 5 | 3475-0103 | LOCK PLATE | 1 |
| 6 | 2175-3442 | SCREW, TRUSS #10 X 1/2 | 10 |
| 7 | 3375-0160 | PLUG, ID REAR (RED) | 1 |
| 8 | 337S-0161 | PLUG, ID FRONT (BLACK) | 1 |
| 9 | 3375-0159 | BAR, BLADE FRAME TIE | 1 |
| 10 | 2175-0082 | NUT, HEX LOCK # 10 | 2 |
| 11 | 2175-0079 | WASHER, SPRING | 2 |
| 12 | 3475-0105 | PLATE, STRIPPER | 2 |
| * | 4675-0107 | SHAFT ASSEMBLY, BLD. COMPLETE FRONT | 1 |
| 13 | 4575-0059 | SHAFT ASSEMBLY, BLADE FRONT | 1 |
| 14 | 3275-0014 | BLADE, CUTTING | 43 |
| 15 | 3375-0164 | SPACER, BLADE - SOLID | 2 |
| 16 | 3375-0165 | SPACER, BLADE | 41 |
| * | 4675-0104 | SCREW ASSEMBLY, COMPLETE FRONT | 1 |
| 17 | 4375-0029 | SCREW ASSEMBLY, BRG. FRONT | 1 |
| 18 | 2175-0078 | RING, SNAP E #037 | 1 |
| 19 | 4575-0060 | BRG. ASSEMBLY, BLADE SHAFT (W/BUSHING) | 1 |
| * | 4675-0105 | SHAFT ASSEMBLY, BLD. COMPLETE REAR | 1 |
| 20 | 4575-0061 | SHAFT ASSEMBLY, BLADE REAR | 1 |
| * | 4675-0106 | SCREW ASSEMBLY, COMPLETE REAR | 1 |
| 21 | 4375-0030 | SCREW ASSEMBLY, BRG. REAR | 1 |

*Part Not illustrated

